

ABSTRACT

There is provided an antenna array apparatus using a GPS signal in a base station and a beamforming method thereof. In the antenna array apparatus, a GPS signal processor receives GPS position information from a mobile station and calculates the position information of the mobile station. A signal processor calculates a weight vector using the position information to form a transmission/reception beam. A transmission/reception beamformer forms the transmission/reception beam according to the weight vector.

Variable	Mean	SD	Min	Max
Age	38.5	12.5	18	65
Gender	0.5	0.5	0	1
Marital Status	0.7	0.5	0	1
Education	12.5	2.5	9	16
Income	3500	1500	1000	8000
Health	0.8	0.2	0	1
Stress	4.5	1.5	1	7
Depression	0.3	0.4	0	1
Life Satisfaction	5.5	1.5	1	9
Work Satisfaction	6.5	1.5	1	9
Family Satisfaction	7.5	1.5	1	9
Community Satisfaction	6.5	1.5	1	9
Overall Satisfaction	6.5	1.5	1	9